## (19) World Intellectual Property **Organization**

International Bureau



## 

(43) International Publication Date 17 February 2005 (17.02.2005)

**PCT** 

## (10) International Publication Number WO 2005/014940 A1

E02D 35/00 (51) International Patent Classification<sup>7</sup>:

(21) International Application Number: PCT/AU2004/001061

(22) International Filing Date: 10 August 2004 (10.08.2004)

(25) Filing Language: English

(26) Publication Language:

**English** 

(30) Priority Data: PI20032471

11 August 2003 (11.08.2003) MY

(71) Applicant and

(72) Inventor: ONG, Chin, Chai [MY/AU]; 32 Winterbell Court, Churchlands, Perth, Western Australia 6018 (AU).

(74) Agent: HOLLIDAY, Neal, Joseph; Lord and Company. 4 Douro Place, West Perth, Perth, Western Australia 6005 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

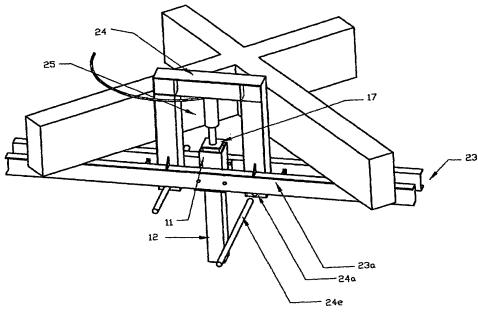
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PILE ANCHOR HEAD FOR AN UNDERPINNING PILE AND METHOD OF PRELOADING THE SAME



(57) Abstract: There is disclosed an underpinning pile to provide an efficient, simple and sure method in driving and lifting the foundation and at the same time securing the direct transference of preload without further loss of preload from the building into the newly completed driven pile. A pile anchor head (11) is provided that receives a pile (12) and is provided with a lifting means (13). The pile anchor head (11) and lifting means (13) receive the building load and transfers it to the pile (12), which allows practically any kind of material and shape of pile (12) to be used.